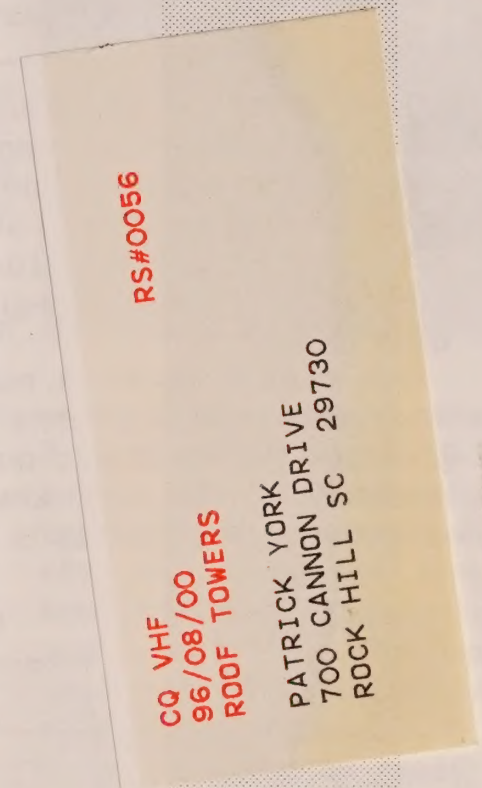
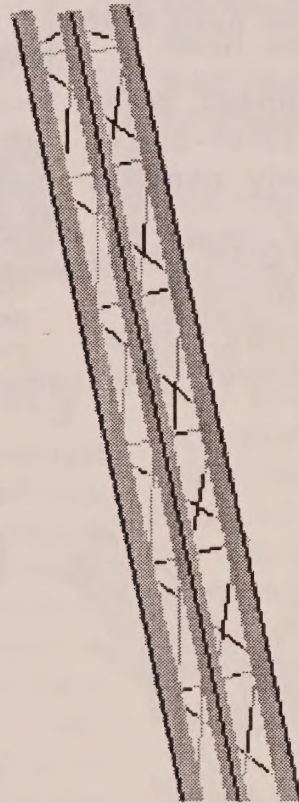
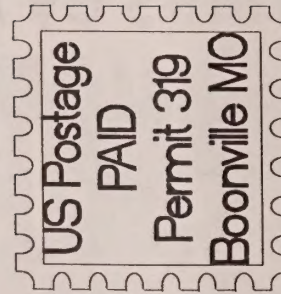


Your Guide to **Amateur Radio** Towers and Accessories

Price \$2.00

Summer 1996



13620 Old Hwy 40
Boonville, MO 65233
<http://www.glenmartin.com>

For Amateurs By Amateurs



The Martin Family— (Left-Right) Tatum Martin, Sky Roth Martin, Chris Martin (KBØLIO), Beau Aero Martin, Gary Martin (WBØWMQ) Bob Martin (WBØWOZ)

Glen Martin Engineering is a family-owned business which has been operating in the same area for over half a century - and four generations.

We operate under the simple principle of honest, well-engineered quality products at manufacturer-direct prices. Our Meteorological towers are widely used in high regard.

Our central location makes delivery of YOUR order very quick and inexpensive. This catalog is designed to give you plenty of information. And if you need further assistance we are always happy to answer your questions. All it takes is a phone call!

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How To Order

Our order department is open from 9:00 am thru 5:00pm central time, Monday to Friday. It's easy to order by phone, fax or mail.

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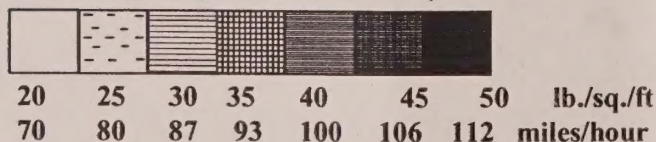
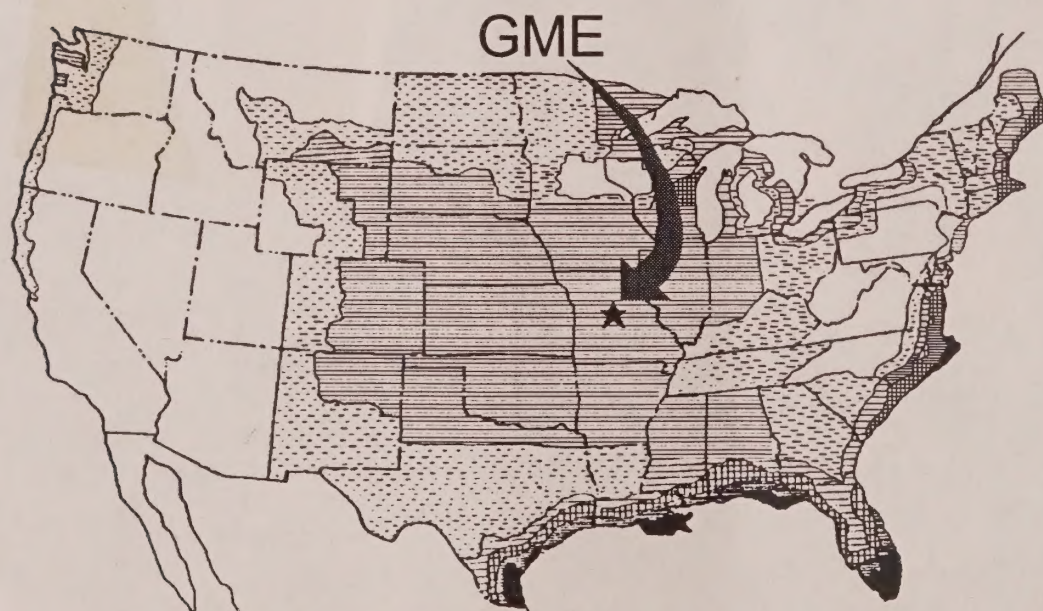
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We offer a variety of convenient payment options-- certified checks, Money Orders, American Express, Mastercard, Visa, Personal checks and company checks. COD shipments are cash only and exclude items that are custom made.



***Every effort has been made to achieve complete accuracy. Prices and items are subject to change at any time without notice. Not responsible for typographical errors. Reserve the right to correct prices, and/or quantity.

MARTIN VOYAGER TOWERS

**BEST
FEATURES
BEST
VALUES**

Glen Martin Engineering

is proud to be the only U.S. tower manufacturer to include satin-finish anodizing and stainless steel hardware for every tower at no additional cost.

The engineering design focus of Martin Voyager structures is durability and a no-compromise standard of strength. Glen Martin Engineering manufactures every tower with rugged 6061-T6 angle aluminum and the same all-bolted (no welding) construction employed in the Eiffel Tower and the Golden Gate Bridge. Attention to detail is evident in the 18-8 Stainless Steel bolts with nylon self-locking SS nuts used throughout.

Voyager Structures are surprisingly easy to store, transport and install. You may also choose unassembled sections shipped ready to assemble in the field. Either way, the Glen Martin Engineering no-nonsense approach to towers ensures many years of maintenance-free use as supporting structures.

A typical GME tower package includes a fixed or hinged concrete footing section, a fixed



or hinged base, tower sections in 7-1/2 foot, 8-3/4 foot or 10 foot lengths, guy wire assemblies, lightning and ground protection kits, and accessories ranging from simple mast mounting plates and masts to the Hazer equipment tram system to easily raise and lower payloads on the tower as easily as raising or lowering a flag.

Comprehensive tower packages are available, including foundation, tower, accessories, complete guy wire kits (using premium-quality Kevlar electrically transparent guy assemblies, making wavelength computations and insulators a thing of the past).

Glen Martin Engineering Voyager towers have features and versatility to allow easy use horizontally or vertically. With options like telescoping configurations, fold-over and



Warranty

Glen Martin Engineering Inc. warrants all GME products for ONE full year. If our product fails to give the original purchaser complete satisfaction within one year from the original purchase, return it to GME for free repair or replacement. GME will not be liable for loss or damage to property or any incidental or consequential loss or expense from property damage due directly or indirectly from the use of this product.

Shipping

GME is centrally located in the USA. Most items are shipped by UPS. The shipping costs are indicated in the catalog. Items too large for UPS are shipped by motor freight which is generally about as quick and often less expensive than other means. Always inspect your delivery when it arrives and verify that the packages or crates are undamaged before you sign.

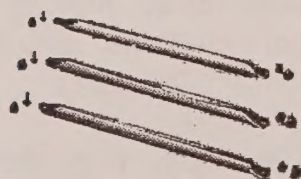
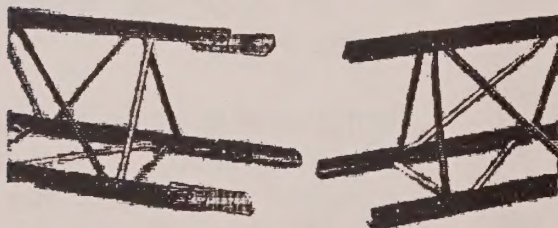
hinged base towers, a temporary footing, and the popular Hazer in wide use by Amateur Radio operators throughout the U.S. for several decades, it is obvious we are fully capable of satisfying a wide variety of structure demands.

"Solution to Support"

Our motto is "Solution to Support." Allow us to prove that motto to you today. Make Glen Martin Engineering the first choice for all of your tower needs!

Martin Tower packages come in various heights, sizes and different hazer systems. They include virtually all the necessary hardware and accessories for installation and operation.

You need the hazer. Two styles of Hazer systems are available for our tower packages. The Hazer 5 & 6 is a unique three sided elevator cage that rides around the outside of your tower. The bottom shelf on the Hazer holds your rotator and the upper shelf holds a thrust bearing to stabilize your mast. A winch is located conveniently for the operator to crank. The cable passes from the winch, up the center of the tower, thru a pulley and down the outside face of the tower, finally connecting to the Hazer. The tower is



Bracing is bolted in across every tower joint making a continuing Z braced structure

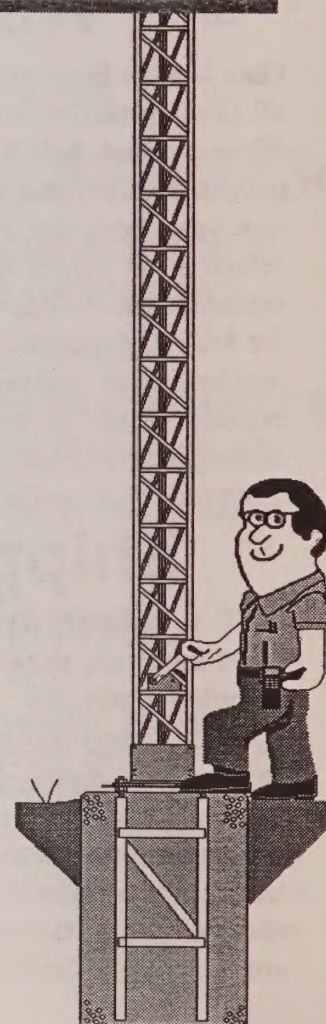
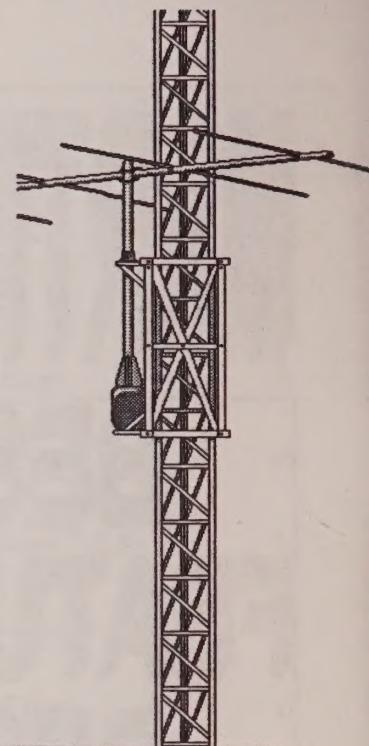
stationary but your antenna system moves up and down the outside face of the tower similar to a flag on a flag pole. A safety latch operates past each of the horizontal braces on the tower much like a ladder lock so there is safety if the cable were to break. The **Voyager Hazer 7** is some different in that a separate track of two rails is fastened to the tower and the Hazer carriage rides on the track. Actually three different Hazers could be attached to the same tower. There is an advantage to this system. On higher towers that require guy wires at different levels they are easier to handle. As you can see in the illustrations the Hazer will bring your equipment down to your level is an

Treat yourself to the Hazer

- * Eliminates Climbing Towers
- * Work on Antennas at Ground Level
- * Repair your Antenna whenever you need
- * Simple Installation

upright position safely and quickly. Telescoping towers such as our Martin T-1845 will only bring your antenna down to the height of the tallest section and mast which in most cases is much more than 20 feet! Likewise a fold over tower also has it's disadvantages. Usually they fold over at 30 or 40 feet in the air. If they are not counterbalanced perfectly and the cable breaks watch out. But more important when the antenna is lowered it is at an awkward position making tune up or maintenance very difficult. Not so with the Hazer. Your antenna comes down all the way in an upright position. Safety, speed and convenience.

A quality tower is your best investment. Not just quality but engineering as well.



TOWER SPECIFICATIONS

M-13

13" equal triangle
6061 T6 anodized aluminum
18-8 stainless steel bolts
12" unbraced leg length
7'6", 8'9" or 10 ft section length
Free-standing to 30' @ 87 mph - 1.5
safety factor, with 2 sq. ft. load.

With one set of guys at top,
12 sq. ft. @ 50 ft. high @ 87 mph

M-18

18" equal triangle
6061 T6 anodized aluminum
18-8 stainless steel bolts
12" unbraced leg length
7'6", 8'9" or 10 ft section length
Free-standing to 38' @ 87 mph - 1.5
safety factor, with 2 sq. ft. load.
With one set of guys at top,
16 sq. ft. @ 50 ft. high @ 87 mph.

Typical Tower Sections

- *Quality materials
- *Thoughtful engineering
- *Anodized 6061 aluminum
- *Angle legs
- *Tubular bracing
- *1/3 the weight of steel
- *No welding
- *All bolted construction
- *Stainless steel bolts
- *SS Nylon insert lock nuts
- *Lifetime investment
- *Z bracing every 15 inches
- *Notice how tower bracing
continues across adjoining
tower sections.

We Have Seven Tower Packages to Choose From

The Martin towers are constructed of satin anodized aluminum. No rust or corrosion. Lightweight yet strong enough to meet the most stringent building codes such as BOCA, EIA, UBC. 100 years from now your Martin tower will still be performing. All bracing and joints are bolted together with stainless steel hardware. There is no welding to crack or break. The bolted construction is similar to, larger towers, bridges and airplanes.

Benefit from engineering

Consider how you will erect your Martin tower. Your shipment will arrive via motor freight in a large crate. After careful examination for any damage remove the lid and possibly a side or end. Off loading each piece from the truck is not difficult since no one piece weighs more than 35 pounds. After consulting the owners manual the first project is the foundation hole. Once the concrete footing section is installed, shown in picture at right, the 10 foot tower sections are assembled together onto the hinge base, HB-13. In this horizontal position the Hazer can be tried out by sliding it up and down the tower. Once the HB-13 is bolted to the CHB-13 studs, the tower is walked into upright position and secured. The tower is then plumbed with the foundation studs. The guy wires are tightened to the earth screw anchors. Your rotator and antenna is next installed on the Hazer. The towers have conservative wind

load ratings. Please consult the chart on page 8.

The prices quoted include shipping and crating cost for the 48 contingent states.

M-1350A \$1971.06

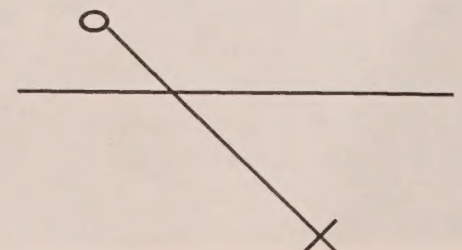
- 5 10 foot aluminum M-13 sections
 - 1 CHB-13 concrete footing assembly
 - 1 HB-13 hinge base for tower
 - 1 H-5 Hazer w/cable, winch, pulley etc.
 - 1 10 ft. x 2" mast & TB-25 thrust bearing
 - 3 Guy wire tower brackets
 - 210 feet of kevlar guy cable & fittings
 - 3 ES-60 48" long earth screw
 - 3 TB-3806 3/8 forged turnbuckles
 - 1 GR-5080 8' ground and hdw Preassembled Hazer, tower, etc.
- Shipping weight one crate 400 lbs

M-1340A \$1744.56

40 foot tower package like M-1350A with 162 feet of Kevlar guy cable.
Shipping weight 380 lbs.

M-1330A \$1539.56

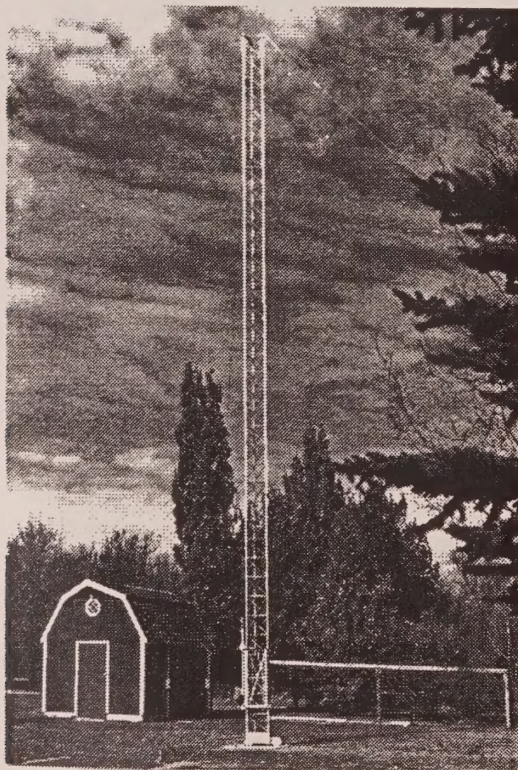
30 foot tower package like above with 125 feet of kevlar guy cable.
Shipping weight 360 lbs.



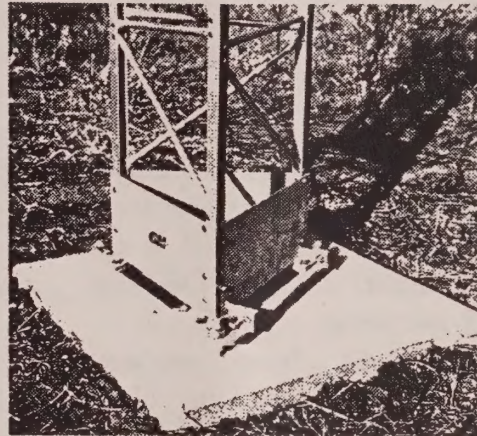
M-1330A \$1539.56
 30 foot tower package like M-1350 with 125 feet of kevlar guy cable.
 Shipping weight 360 lbs.
 Crate size = 48"W x 36"H x 128"L

M-1850A \$2292.64
 5 10 foot aluminum M-18 sections
 1 CHB-18 concrete footing
 1 HB-18 hinge base for tower
 1 H-6 Hazer w/cable, winch, pulley etc.
 1 10 ft. x 2" mast & TB-25 thrust bearing
 3 Guy wire tower brackets
 210 feet of kevlar guy cable & fittings
 3 ES-60 48" long earth screw
 3 TB-3806 3/8 forged turnbuckles
 1 GR-5080 8' ground and hdw
 Preassembled Hazer, tower, etc.
 Shipping weight one crate 450 lbs

M-1840A \$2047.64
 40 foot tower package like above with 162 feet of Kevlar guy cable.
 Shipping weight 400 lbs.
 Crate size = 48"W x 44"H x 128"L



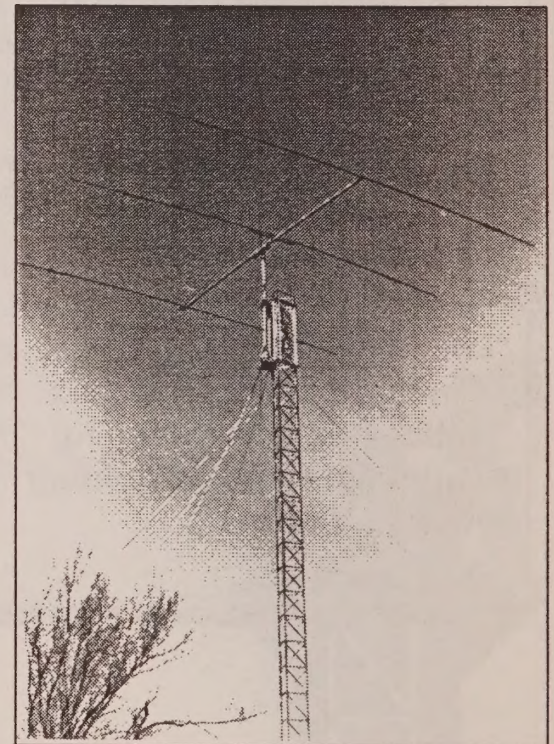
THE BEST OF EVERYTHING



M-1870A \$3485.00
 70 foot tower like M1860A, with 435 ft Kevlar Shipping weight one crate 525 lbs
 Crate size = 48"W x 54"H x 128"L

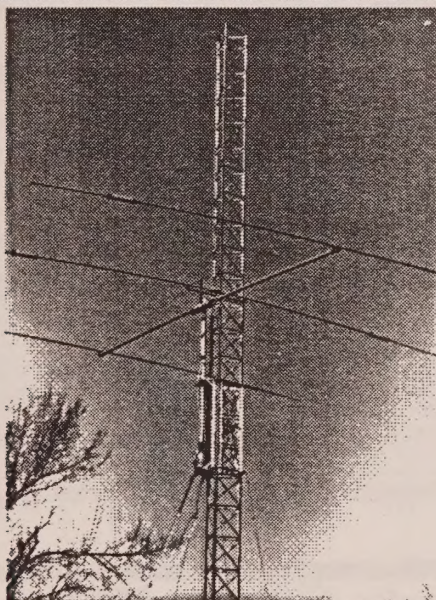
**Easy to Install
 Low Cost
 No Climbing Necessary**

M-1860A \$3195.00
 6 M-18, 10 foot aluminum tower sections
 1 CHB-18 concrete footing
 1 HB-18 hinge base for tower
 1 H-7 Hazer w/track, winch, pulley, ect
 6 Guy wire tower brackets
 370 ft. of kevlar 2100 guy cable & fittings
 3 ES-60 6" dia. x 48" long earth screw
 6 TB-3806 3/8 x 6" forged turnbuckle
 1 GR-5080 5/8 x 8' ground rod and hdw
 Preassembled tower, Hazer, hinge base to tower, winch plate, and top pulley block. Shipping weight 475 lbs.



MARTIN TOWER PACKAGES. THE NEW STANDARD IN TOWERS

Martin tower packages are the result of over six years of research and development and the most extensive testing regimen undertaken in Glen Martin Engineering's 14 year history. The M-18 and M-13 packages advance the art of tower technology into the next century. Take a closer look and you'll find that pound for pound, feature for feature, there's no better-built or better tower value on the market.



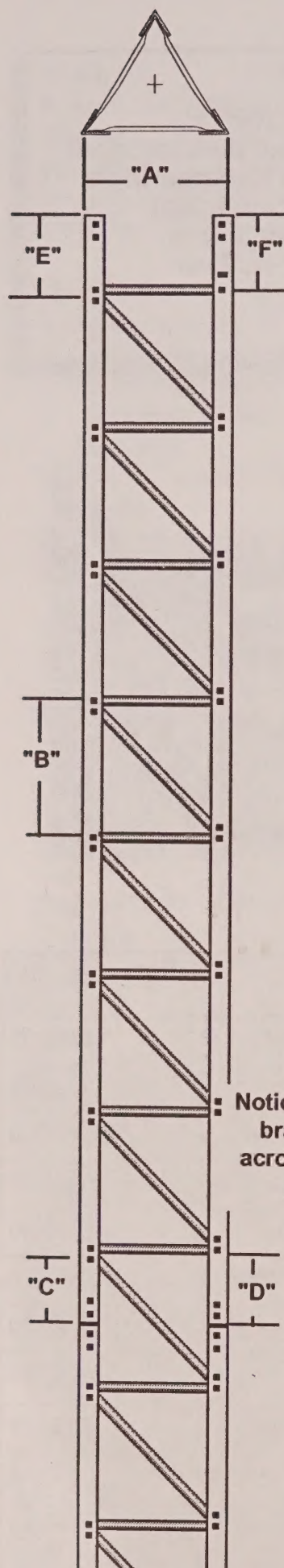
Take it to the top with the **HAZER!**



Look at these smiling faces in Elkhart, Indiana

Tower Accessory Order Information

M-13A	10' M-13 assembled	\$213.00	M-18A	10' M-18 assembled	\$252.00
M-13	10' M-13 unassembled	\$188.00	M-18	10' M-18 unassembled	\$227.00
M139A	8.75' M-13 assembled	\$191.00	M-189A	8.75' M-18 assembled	\$231.00
M139	8.75' M-13 unassembled	\$166.00	M-189	8.75' M-18 unassembled	\$206.00
M137A	7.5' M-13 assembled	\$167.00	M-187A	7.5' M-18 assembled	\$198.00
M-137	7.5' M-13 unassembled	\$147.00	M-187	7.5' M-18 unassembled	\$178.00
FB-13	Fixed Base for M-13	\$101.00	FB-18	Fixed Base for M-18	\$129.00
HB-13	Hinge Base for M-13	\$148.00	CHB-18	Concrete footing for HB-18	\$107.00
CHB-13	Concrete footing for HB-13	\$91.00	HB-18	Hinge Base for M-18	\$238.00
CM-1300	Center mount for M-13 (2 req.)	\$26.00	CM-1800	Center mount for M-18 (2 req.)	\$29.00
TF-1300	Temporary footing for M-13	\$220.00	WB-1800	Wall bracket for M-18	\$48.00
WB-1300	Wall bracket for M-13	\$37.00			



Top View

Tower Specifications

This instalntion is	CHB-13	M-13	CHB-18	M-18
"A" (inches)	45	12-3/4	48	17-3/4
"B" (Inches)	33	15	48	15
"C" (Inches)		5-1/2		5-1/2
"D" (Inches)	36-1/2	7-1/2	44-1/2	7-1/2
"E" (Inches)		9-1/2		9-1/2
"F" (Inches)		7-1/2		7-1/2
Cubic YDs Concrete	1-1/4		2-1/2	
Material	A-51 Steel	6061-T6	A-51 Steel	6061-T6
Weight per section	23	29	30	33
Hardware	18-8 Stainless Steel, size 1/4-20, nylon insert lock nuts			
Tower brace dia.	1/2 OD X .062 wall		5/8 OD X .062 wall	
Total projected area of tower per running foot in square feet	.165			.196

Tower Wind Load Capacity with Guys at Top

Miles per Hour Lbs. per square foot		80 mph 25psf	87mph 30psf	100mph 40psf	112mph 50psf
Total	M-1330A	16.8	14	10.5	8.4
Projected	M-1340A	15.6	13	9.75	7.8
Area in	M-1350A	14.4	12	9	7.2
Square	M-1840A	20.4	17	12.75	10.2
Feet allowable	M-1850A	19.2	16	12	9.6
for Antennas,	M-1860A	19.2	16	12	9.6
etc.	M-1870A	18	15	11.25	9

Check Page 16 for Ground Area Requirements and Method of Guying

Glen Martin Engineering manufactures tower foundations in three distinct configurations.

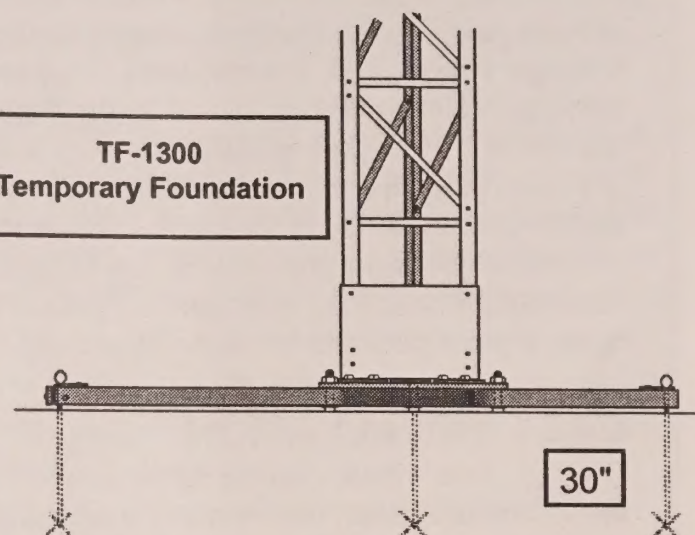
CHB-13/18: The basic foundation is our hinged base set on a concrete anchor (CB-13 & HB-13 or CB-18 & HB-18). This base allows the entire tower to be assembled on the ground, attached to the base and hinged into position. Once erect, tower plumb is easily fine tuned via leveling bolts in the base.

FB-13/18: An alternate method is to install a fixed concrete (non-hinging) base (FB-13 or FB-18). The tower's first section and concrete base need to be plumbed and braced before the concrete is poured.

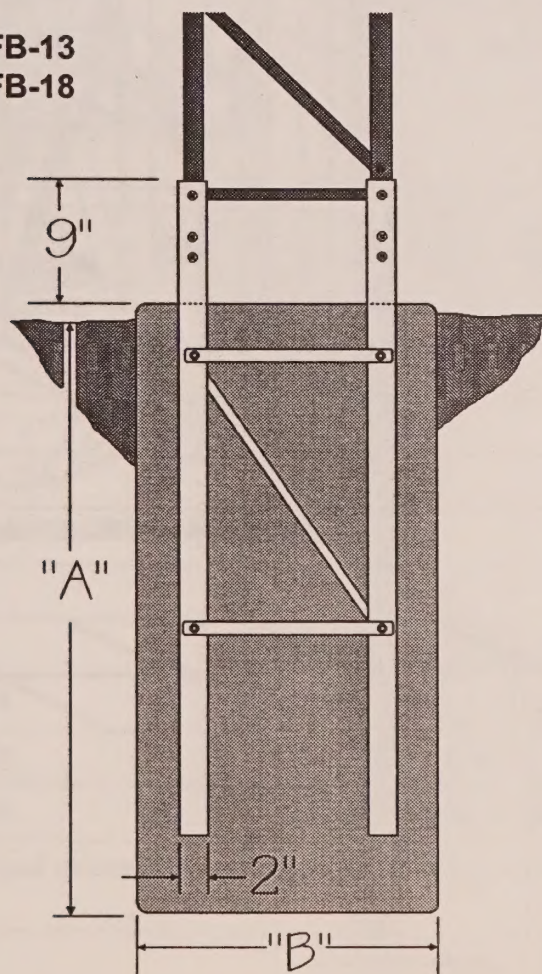
TF-1300: For temporary installations, our TF-1300 Temporary Footing employs three earth screws to provide a secure footing without the need for concrete. The TF-1300 is available for M-13 towers. It is used in conjunction with our HB-13. Simply screw base to the ground and hinge the tower into position.

Tower Footing Summary

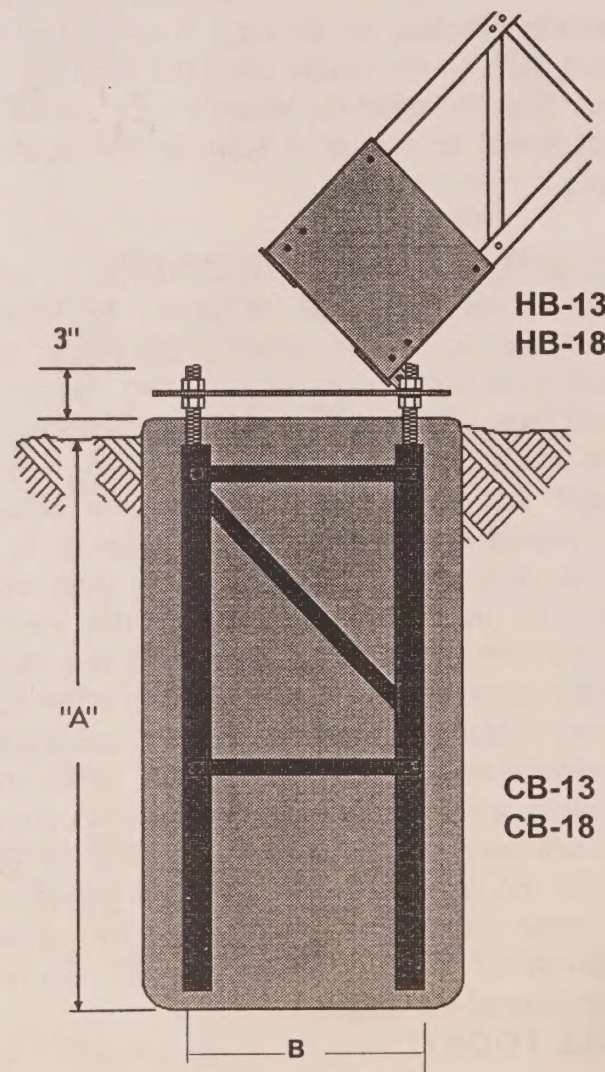
TF-1300
Temporary Foundation



FB-13
FB-18



HB-13
HB-18



CB-13
CB-18

HAZE YOUR TOWER

The HAZER transit system is a remarkable assembly that adds great benefits for your tower and equipment load or antenna system. The Hazer works like a simple elevator designed to provide vertical or horizontal mobility of your measuring instruments, cameras, lights, or rotators and antennas. Hazer models 2 through 6 wrap around and use the tower as a track, whereas Voyager Hazer 7, 8, 9 incorporate a separate track assembly which is bolted to the face of the tower. Wire rope cable and a gear winch are used to raise and lower the antenna, which travels on the outside of the tower. This feature eliminates climbing and makes servicing your equipment easier than ever before - even if the tower sight is serviced by only one person!

EASY INSTALLATION

Your Hazer can be easily assembled on an erected tower, however some climbing is necessary to install the pulley block assembly and winch cable. If it is installed before the tower is erected, no climbing is ever needed. From then on the Hazer does the climbing for you. Once installed the Hazer travels smoothly past tower braces and bolts at the section joints.

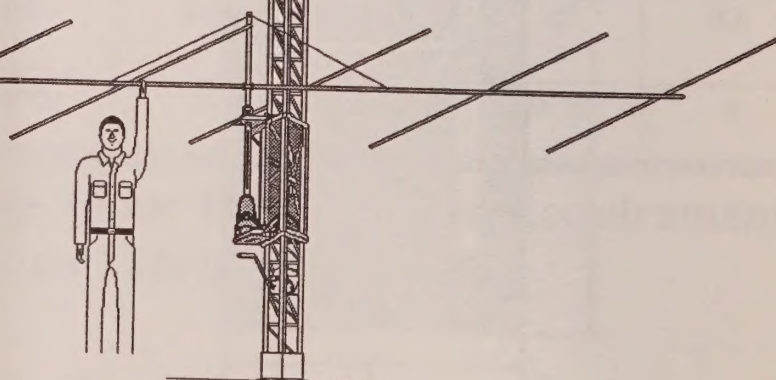
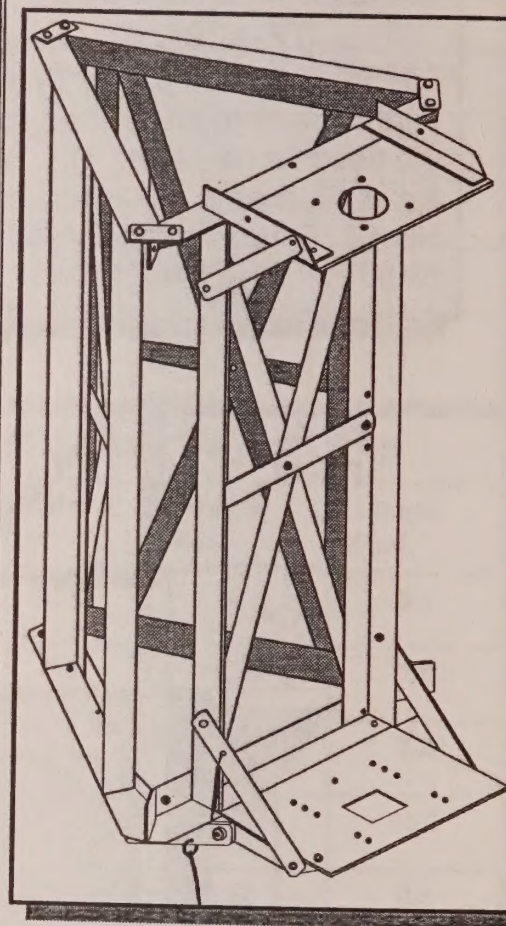
WEIGHT AND WIND PRESSURE

The Hazer is designed to transit heavy loads. When utilizing the Hazer the mast centerline is several inches from the tower face. There are no rollers or bearings to give future problems. When considering which Hazer will work for you, allow for future equipment or antenna plans. Hazer 4, 5, 6 works best for stacking of more than one antenna. In the chart compare the Hazer weight with the antenna wind load and dead weight capacity. All Hazer kits include the top pulley block assembly, winch, cable, all hardware and mounting brackets. When the Hazer is used with a rotator and antenna mast, you will need a thrust bearing (GME # TB-25) for the top plate. Lower plates are pre-drilled for most popular rotators. (Special plates required for the TailTwister rotator) To get your state-of-the-art Hazer

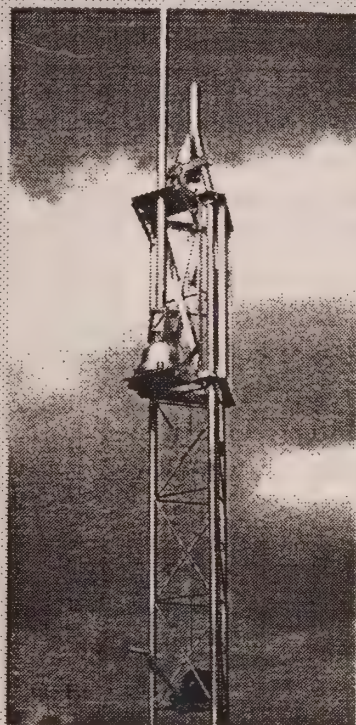
CALL TODAY!

Hazer 2,3,4,5,6

*For Martin Towers
Rohn 20/ 25*



YES you can use guy wires! A fifty foot tower will require only one set of guy wires in most cases. We suggest putting these guys at the very top of the tower in the few inches just above the Hazer. To lower a beam antenna, two guys are disconnected by completely unscrewing the turnbuckles at the ground. The guys drape in toward the tower and now the beam can be lowered to the ground. Once down, the guys could be reconnected. The tower would now be completely guyed but the antenna system would be parked at ground level. The third guy is left in place during the whole operation.

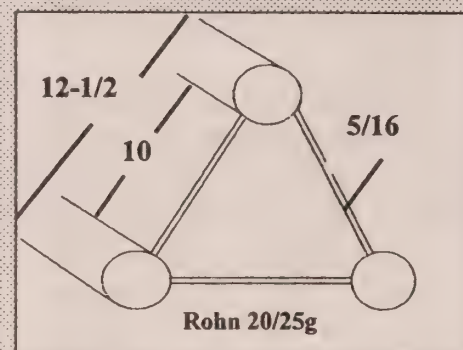


A Safety latch system locks past each horizontal brace on the tower. When in position at the very top the Hazer is lowered slightly till the safety latch engages and then the winch cable is tensioned slightly so it does not slap against the tower and cause noise. The cable carries the load only when raising or lowering and the safety latch is always operational should the cable break.

The Messenger Line kit is an option to carry the weight of the coax and rotator cable. It is a kevlar electricly transparent cable onto which these cable are attached as a strain relief.

Each Hazer includes the following:

Hazer with top and bottom rotor and thrust bearing plates, winch, 100 feet 1/8 winch cable, top pulley and all mounting hardware which is stainless steel.



Hazer Order Information

Hazer Model #	For Tower Model	Dead Weight Load	Wind Load*	Price
H-2	Rohn 20/25g	175 lbs	12 sq. feet	\$339.95
H-3	Rohn 20/25g	150 lbs	8 sq. feet	\$245.95
H-4	Rohn 20/25g	200 lbs	16 sq. feet	\$326.95
H-5	Martin M-13	225 lbs	12 sq. feet	\$337.95
H-6	Martin M-18	250 lbs	16 sq. feet	\$388.95
TB-25	Thrust bearing, premium duty, weatherized			\$79.95
HR-6010	Tailtwister Plates			\$19.95
ML-2500	Messenger Line Kit for Rohn Towers, (specify tower and height)			\$65.50
ML-1800	Messenger line Kit for Martin Towers, (specify tower height)			\$65.50

*Wind load ability also dependant on capability of tower. Figured at 85 mph , one foot above Hazer with a 1.5 safety factor.

48 State UPS Freight Included

Voyager 7,8,9,10

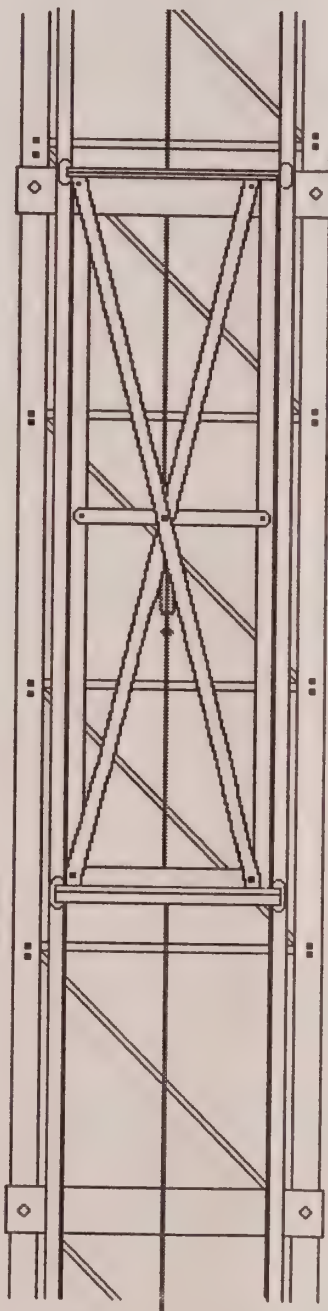
The Voyager Hazer is a tower accessory designed to elevate antennas up and down the outside of a tower.

A separate set of **aluminum track** is bolted to the face of the tower. Four sets of **bronze bearing rollers** make contact with the track. A **3/16 stainless steel hoisting cable** attached to one end of the Hazer

runs up the full length of the track, thru a pulley and then back down the full length to the winch assembly, then up to the bottom side of the Hazer. The effect is an endless cable that does not build up on the winch spool. A manual **worm gear winch** is standard. This winch can be electrified by chucking a **1/2 inch variable speed drill motor** to the winch handle shaft.

Safety System The Hazer itself has a one way spring loaded cam lock which operates against each track. As the Hazer elevates, the cam pulls away. As the Hazer descends, the hoisting cable disengages the cam lock. However, if the cable were to

**FRONT
VIEW
VH-7
on our
M-18**



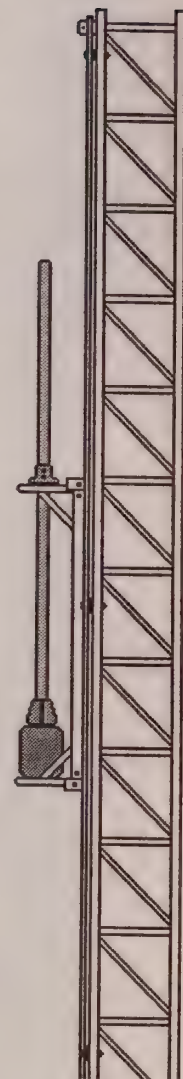
break the cam lock would engage and lock increasingly tighter with more weight. A second lock is reached when the Hazer is extended to it's furthest distance up the tower. At each of the four corners of the Hazer a two way engagement point is reached that physically locks the Hazer to the tower. All torque and horizontal forces are transferred directly to the tower. This is important for large beams. A third lock can be engaged with a simple u-bolt against the cable. By further removing the winch handle after use prevents unauthorized tampering.

Guy wires and torque bars can be attached anywhere on the tower desired. They only need be disconnected one set at a time at the ground level so a beam antenna can pass by their location. **Coax lines** can either be tied to the hoisting cable or a separte messenger line can be employed.

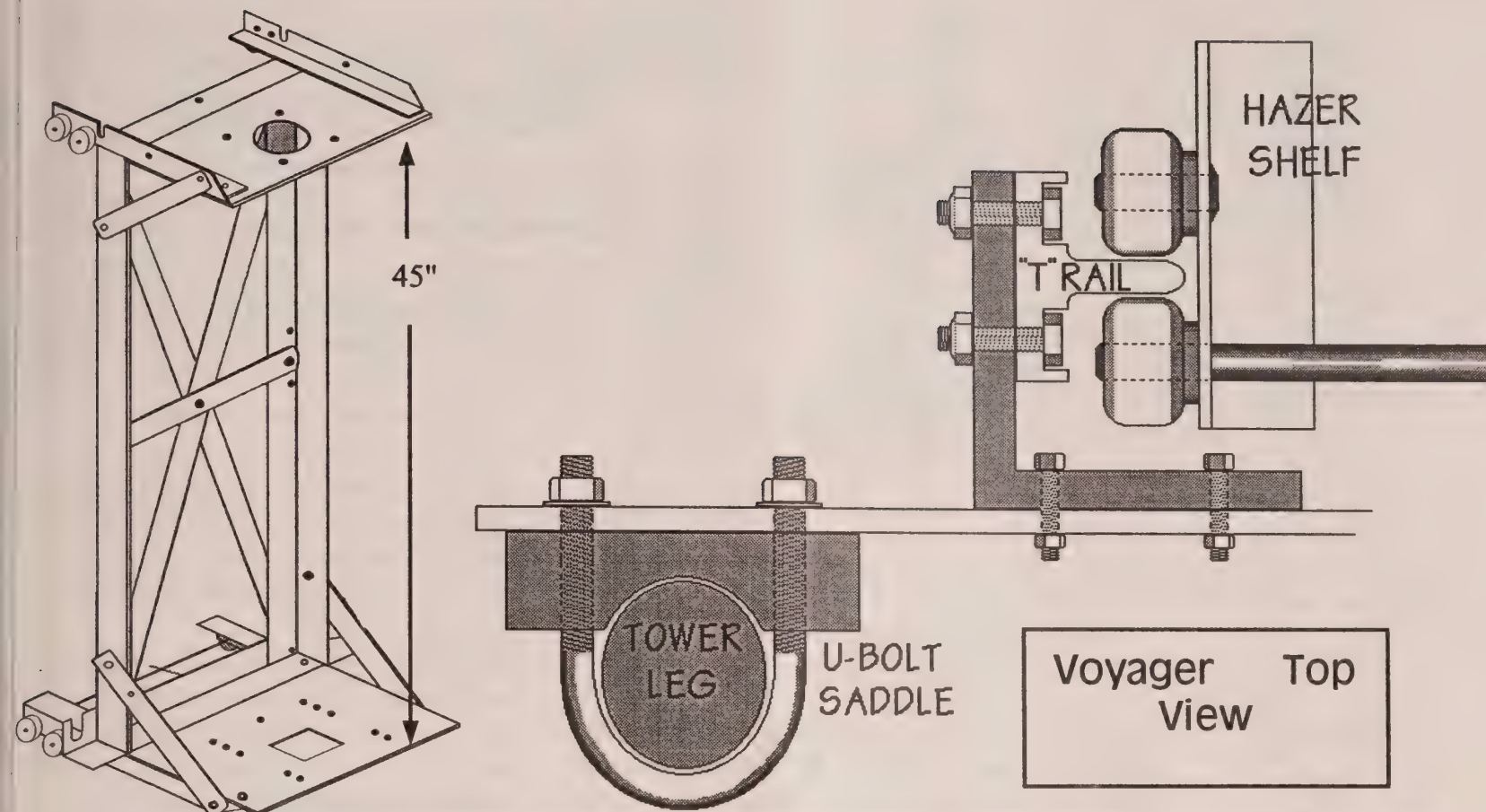
Three models are available in the Voyager Hazer series. The VH-7 is designed especially for the **Martin M18** anodized aluminum tower. The VH-8 for **Rohn 45**, and the VH-9 for **Rohn 55**. Don't forget a **TB-25 thrust bearing**.

Each package price includes a winch and **3/16 stainless steel cable**, sufficient track and mounting hardware to reach the top, a locking top section, and pulley block assembly. All bolts and nuts are **304 stainless steel**.

Track on face of tower



**Side view of
Voyager Hazer
near the top
of the tower**



Voyager Order Information

Hazer Model #	For Tower Model	Dead Weight Load	Wind Load*	Price
VH7-60	60 ft Martin M-18	250 lbs	20 sq. feet	\$1350.00
VH7-70	70 ft Martin M-18	225 lbs	18 sq. feet	\$1455.00
VH7-40	40 ft Rohn 45G	300 lbs	24 sq. feet	\$1120.00
VH8-50	50 ft Rohn 45G	275 lbs	22 sq. feet	\$1230.00
VH8-60	60 ft Rohn 45G	250 lbs	20 sq. feet	\$1350.00
VH8-70	70 ft Rohn 45G	225 lbs	18 sq. feet	\$1455.00
VH9-40	40 ft Rohn 55G	300 lbs	24 sq. feet	\$1155.00
VH9-50	50 ft Rohn 55G	275 lbs	22 sq. feet	\$1265.00
VH9-60	60 ft Rohn 55G	250 lbs	20 sq. Feet	\$1385.00
VH9-70	70 ft Rohn 55G	225 lbs	18 sq. feet	\$1490.00
VH10-30	30 ft Rohn 25G	225 lbs	16 sq. feet	\$975.00
TB-25	Thrust bearing, premium duty, weatherized			\$79.95
HR-6010	Tailtwister Plates			\$19.95
ML-2500	Messenger Line Kit for Rohn Towers, (specify tower and height)			\$65.50
ML-1800	Messenger line Kit for Martin Towers, (specify tower height)			\$65.50

*Wind load ability also dependant on capability of tower. Figured at 85 mph , one foot above Hazer with a 1.5 safety factor.

Roof Towers

holes for most rotators. If your mast will not rotate our MC-10 mast adapter will center and support the mast.

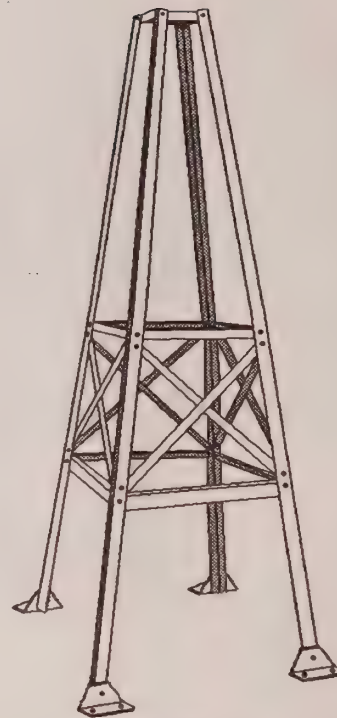
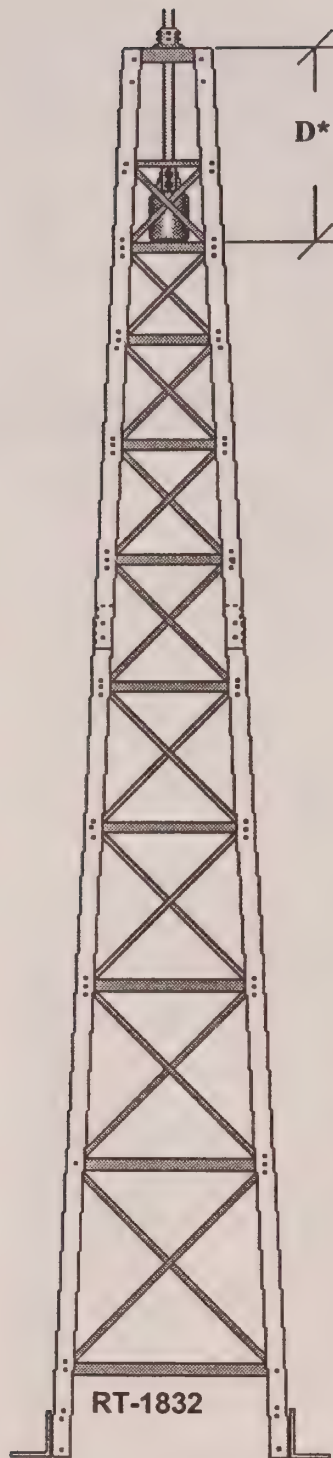
Four brackets are included to mount the tower on the roof. Refer to the chart below for the distance (D*) between the top surface and the rotator mounting surface. **These towers require no guy wires.**

RT-1832 features ladder style construction however we do not recommend climbing! The leg sections are 9 feet long and are bolted together with a six inch overlap making the tower 17 1/2 feet high.

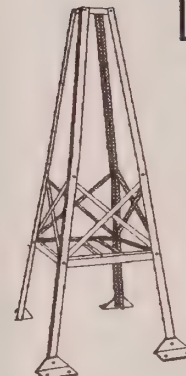
RT-936 weighs 70 pounds which is more than double that of the RT-832. This translates to added strength for larger wind loads and added height where this is necessary.

RT-832, our most popular model. A sizable height and wind load ability with a modest price.

RT-424 will support a modest beam antenna with rotor and thrust bearing mounting.



RT-936 shown
RT-832 not shown



RT-424

Four-leg roof top towers provide the perfect low-cost tower option for meteorological, start-up stations, or a great method for getting AMSAT or other antennas up when your existing tower is already crowded. Assembly plans for each tower include information for simple roof mounting or ground mounting with accessories available from Glen Martin Engineering. To be safe don't forget lightning protection for your building.

All four towers are made of rugged 6061-T6 angle aluminum with stainless steel hardware, so they *never* need painting or maintenance. The top plate accommodates a thrust bearing, and each has mounting

ORDERING INFORMATION

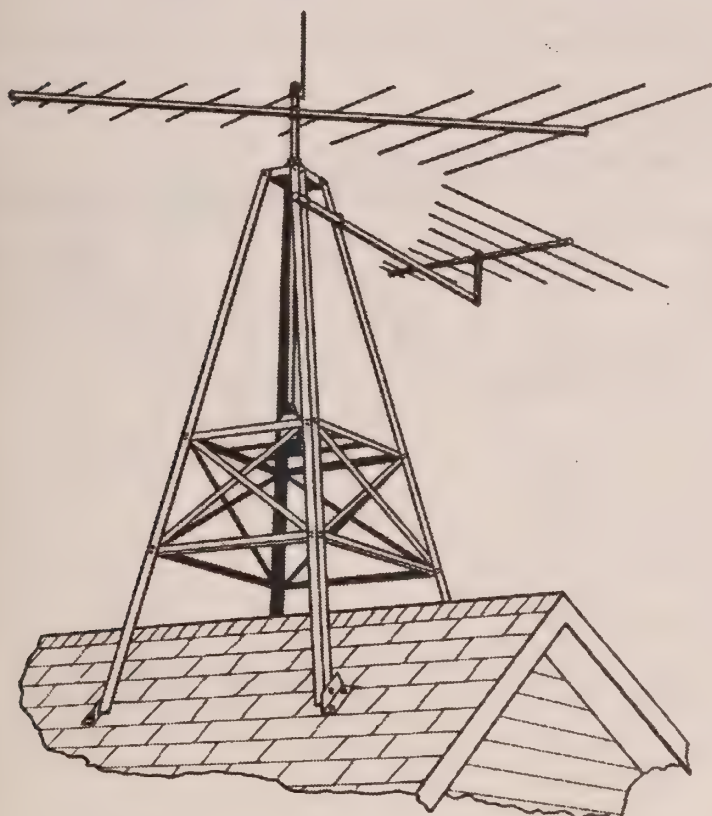
MODEL	Height	*D, inches	Base width	Max Ant. in sq ft @			Max Ant load	Weight	Price w/UPS
				87mph	100mph	112mph			
RT-424	4.5	34.75	24"	6	4.5	3.6	100 lbs	22 lbs	\$149.95
RT-832	8.0	43.75	32"	8	6	4.8	120 lbs	36 lbs	\$219.95
RT-936	9.0	43.75	36"	18	13.5	10.5	130 lbs	78 lbs	\$369.95
RT-1832	17.5	37.62	32"	12	9	7.2	110 lbs	88 lbs	\$499.95

Supports Beams
Quad Antennas
Weather monitors
Scanner & AMSAT
Anodized Aluminum
Extra Heavy Duty
Stainless Steel Bolts

Lightning Rod kit with Aluminum Tapered Point, Mast Clamp, 8' Ground Rod & clamps, & leg Grounding Lug. Order wire separately below. **LR-8400 \$ 148.95**

#4 Ground Wire, order length from tip of mast to ground rod

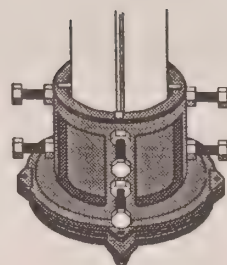
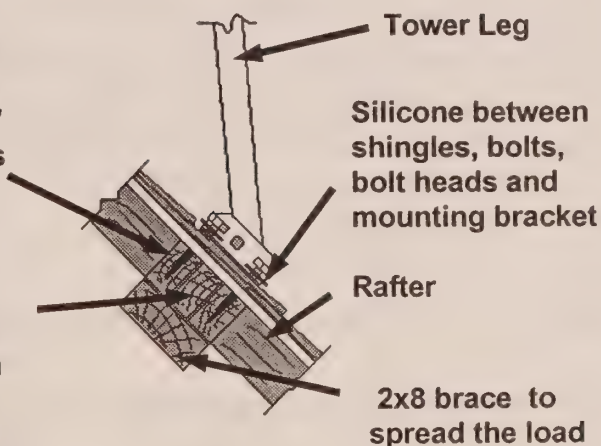
CW-2540 25 feet	\$18.25	CW-5040 50 feet	\$36.50
CW-7540 75 feet	\$55.00	CW-1040 100 feet	\$73.00
CW-1240 125 ft	91.25	CW-1540 150 ft	\$109.50
GR-5080 5/8 by 8 ft. ground rod	weight 8lbs	\$19.00	
GR-4400 Ground rod wire clamp	weight .5lb	\$5.75	
TL-0470 Terminal lug, for wire size to 4 /00		\$1.98	



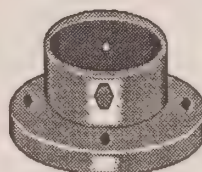
TYPICAL ROOF INSTALLATION

LB-3755
set of 8
3/8" x 5"
lag bolts
\$8.95

2x6
spacers
between
rafters



Thrust Bearing for rotating setups, premium quality, weatherized twin bearing for 1.3 to 2.6 mast diameters.
TB-25 \$ 79.95



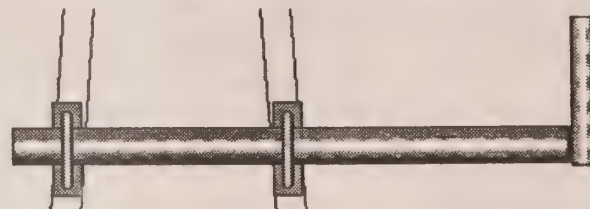
Mast Adaptor for non-rotating setups. Secures masts, 1.3 to 2.1 dia. two required, one at tower top and one at base of mast.

MC-10 \$24.95 ea

Side Arm for adding other antennas, weather gear, etc. 7" high by 1.31" diameter mast, U bolt mounting hardware included. Several can be used.

24" Long # **RA-6024**
\$59.50

48" Long # **RA-6048**
\$76.50



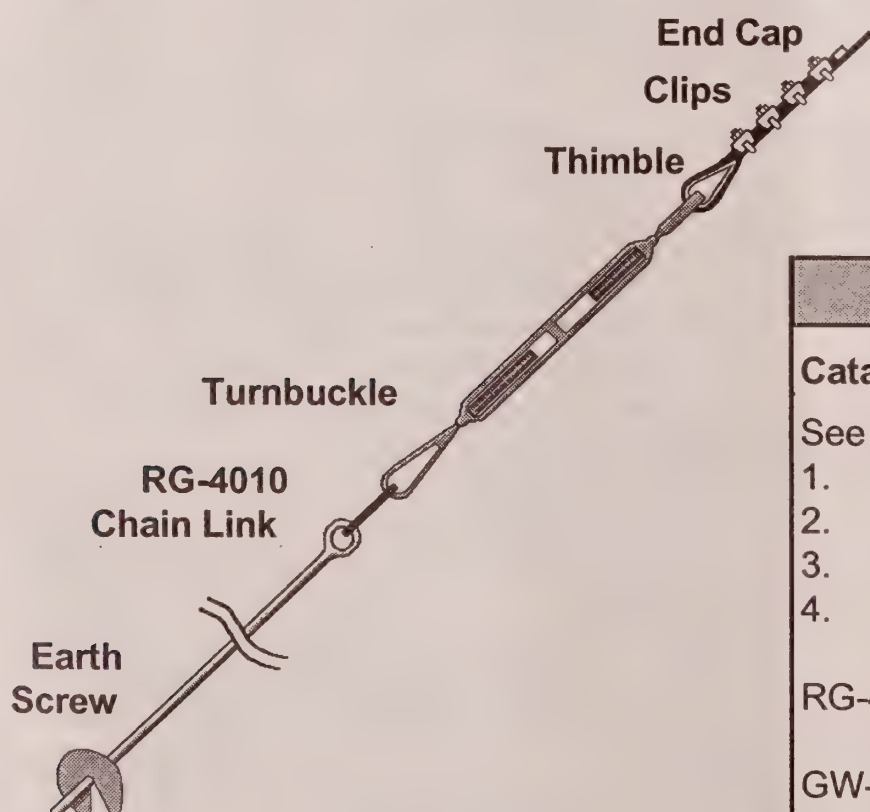
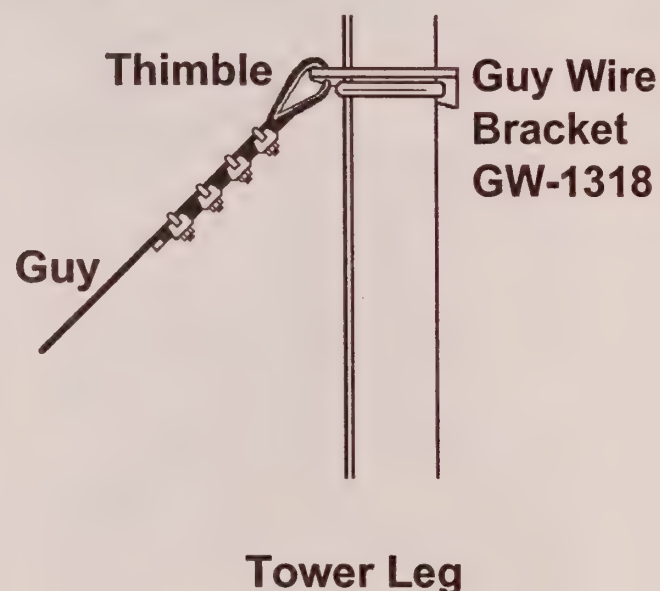
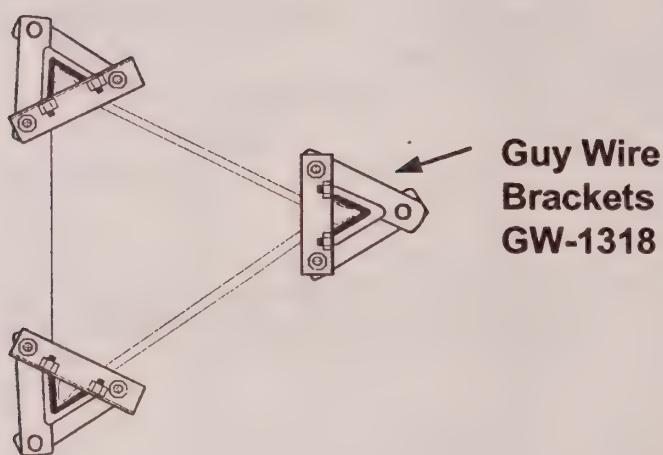
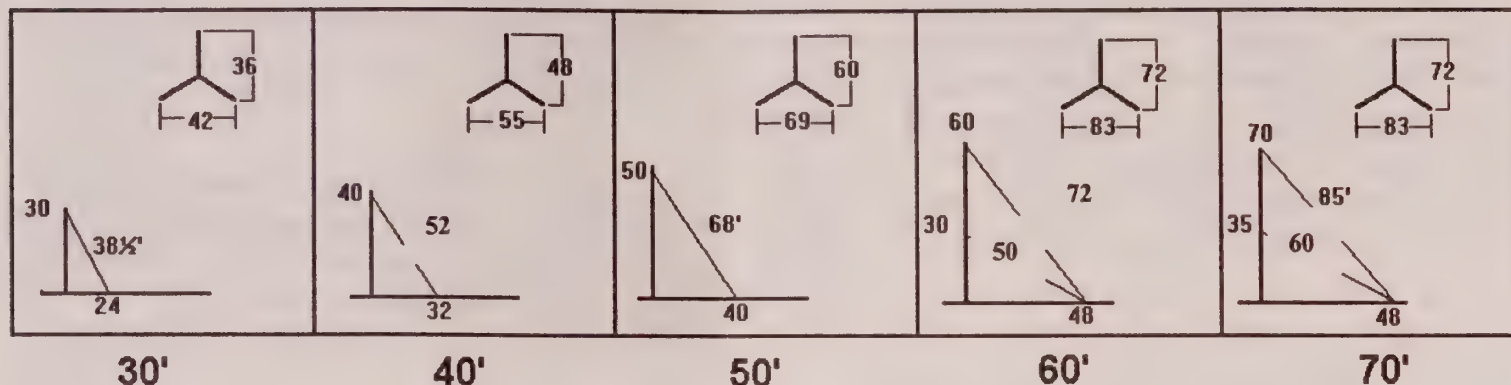
Masts, see page 19

Rotators, see page 19

How To Order Your Tower Setup.

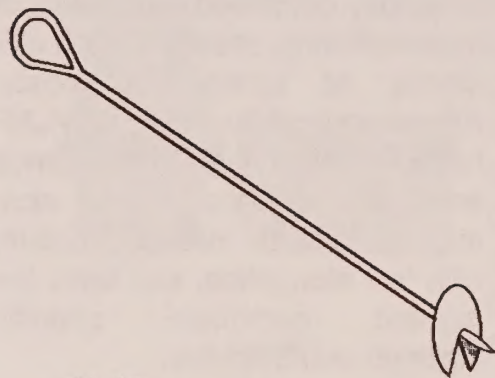
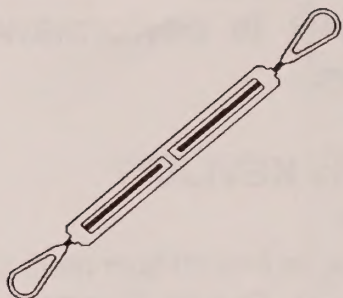
1. Select appropriate tower model from page 1.
2. Will you require lightning protection?
3. Determine ground cable needed. Order next longer length.
4. Will you want to use side arms for additional antennas, weather gear, etc?
5. What mast is best? Match to appropriate height and strength.
6. Check for best rotators on other page.
7. Will you need a thrust bearing for the mast?
8. If the mast will not rotate, order MC-10 mast adaptors.
9. Do you need Lags to bolt the tower to the roof?

Tower Guying and Space Requirements



ORDERING INFORMATION

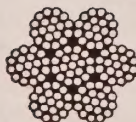
Catalog No.	Description	Weight	Price
See separate description pages on the following:			
1.	Turnbuckles and Earth anchors		
2.	Wire rope, Thimbles, and Rope clips		
3.	M-13\18 tower for GW-1318		
4.	Kevlar insulated guy wire		
RG-4010	1/2" lap link from anchor to turnbuckle	1 lb.	each \$6.95
GW-1318	Guy Wire bracket for Martin towers	1 lb.	each \$11.00



Flexible 7 x 7
Cable



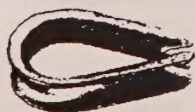
1 x 7 Guy Cable
Galvanized



Extra Flexible
7 x 19
304 Stainless



Wire Rope
Clip



Wire Rope
Thimble

ORDER INFORMATION

Turnbuckles

Catalog No.	Working Load Tons	Dia. & Take Up	Weight lbs	Price
TB-3806	3/4	3/8 X 6	1	\$13.95
TB-5009	1	1/2 X 9	2	\$18.00
TB-6212	1-1/2	5/8 X 12	4	\$33.00

Turnbuckles are drop forged steel. Hot dipped galvanized finish. Eye and eye construction.

Earth Screw Anchors

Model	Overall Length	Rod Dia. Inches	Helix Diameter	Holding Power in Normal Soil	Weight lbs	Price
ES-40	30"	1/2	4"	2,500 lbs.	7	\$13.95
ES-60	48"	5/8	6"	4,000 lbs.	12	\$23.95
ES-80	68"	11/16	8"	11,000 lbs.	26	\$54.00

Air Craft Cable & U-Bolts

Catalog No.	Size & Grade	Working Load, lbs.	Break Strength	Weight per Hundred	Price
WR-125	1/8 Galv. 7 x 7	340	1700 lbs	4 lbs	\$.32
WRS-156	5/32 7 x 19 304 SS	540	2400 lbs	5 lbs	\$.62
WRS-187	3/16 7 x 19 304 SS	740	3700 lbs	9 lbs	\$.68
WRG-156	5/32 Galv. 1 x 7	660	2600 lbs	5 lbs	\$.32
WR-162	1/8" U-Bolt Clip			10 lb	\$.93
WR-2565	1/4" U-Bolt Clip			18 lb	\$1.07
WR-3164	5/16" U-Bolt Clip			30 lb	\$1.32
WR-3742	3/8" U-Bolt Clip			48 lb	\$1.72
PT-2500	1/4" Thimble			10 lb	\$2.09
PT-3100	5/16" Thimble			14 lb	\$2.33

Kevlar Cable

Benefits of using KEVLAR cable:

- Completely isolates a tower-guy system from the antenna field.
- Improves signal coverage by eliminating distortion caused by re-radiated signals.
- Provides quick, easy, maintenance-free tower installations.
- Assures a neater tower appearance with no more corroded steel guys, no troublesome ceramic insulators and no more worries about hidden damage caused by white-noise arcing.

With electrically transparent KEVLAR cable...

You don't have to compute guy lengths that cause resonance! You don't have to install insulators! You don't have to worry about the stretching or aging problems of conventional synthetic ropes! And you will never again be bothered by zapping, snapping and cracking across porcelain insulators!

KEVLAR cable assures...

EFFECTIVE INSTALLATIONS, designed to improve signal coverage because the non-metallic guys cannot absorb or re-radiate your radio signals.

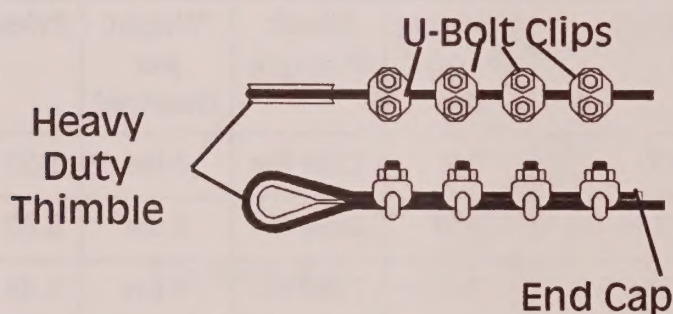
MAINTENANCE-FREE INSTALLATIONS because Kevlar cable provides tension-once and

walkaway guying systems that aren't subject to extreme corrosion or to the hidden damage caused by white-noise arcing across insulators.

KEVLAR is performance proven...

What is KEVLAR?

Kevlar is an Aramid fiber produced by the E.I. Dupont Company to offer a light-weight replacement for steel wire in products such as tires, conveyor belts and cables. KEVLAR's high strength and modulus, combined with ease of manufacturing, results in high efficiency at competitive costs. Ropes and cables using KEVLAR have excellent fatigue resistance and are non-corrosive, non-magnetic and non-conductive, with low elongation, and have the highest combined specific strength and modulus.



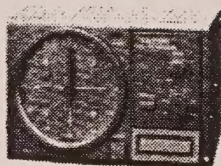
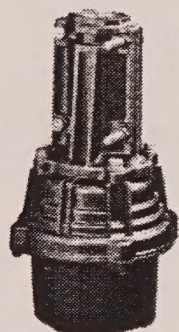
GME Part Number	Steel Wire Equivalent	Thimble Size	Wire Clip Size	End Cap Number
HP2100	1/8"	PT-2500	WR-2565	H-165
HP4000	3/16"	PT-3100	WR-3164	H-164
HP6700	1/4"	PT-3700	WR-3742	H-142

ORDERING INFORMATION

Catalog No.	Description	Weight	Price
HP-2100	2100 lb break , kevlar	2.1	.57
HP-4000	4000 lb break, kevlar	3.5	.93
HP-6700	6700 lb break, kevlar	5.0	1.29
PT-2500	1/4" heavy dty thimble	0.10	2.09
PT-3100	5/16" heavy dty thimble	0.14	2.33
PT-3700	3/8" heavy dty thimble	0.25	2.69
WR2565	1/4" U bolt clip	0.18	1.07
WR3164	5/16" U bolt clip	0.30	1.32
WR3742	3/8" U bolt clip	0.48	1.72
H-165	1/4" end cap	0.01	.65
H-164	5/16" end cap	0.01	.72
H-142	3/8" end cap	0.06	.79

MASTS Select the mast that matches your height and strength needs

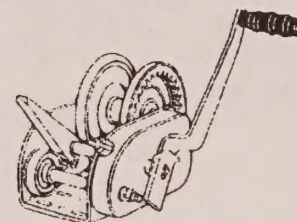
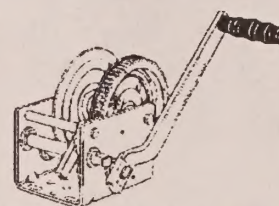
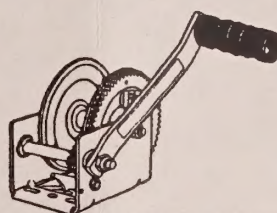
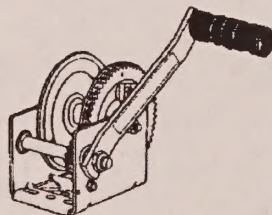
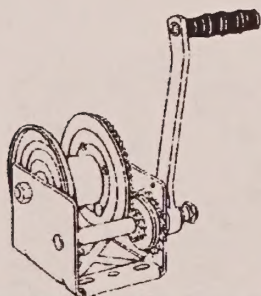
M1049	9' X 1.92" OD X .145 wall galv. steel heavy dty	30 lbs	\$56.00
MA2069	9' X 2.375" OD ,.145 wall aluminum heavy dty	12 lbs	\$96.00
MA1049	9' X 1.92" OD, .145 wall alluminum medium dty	9 lbs	\$64.95
MA5050	5' X 1.312 OD, .145 wall aluminum light duty	5 lbs	\$34.95
MA1050	5' X 1.92 OD, .145 wall aluminum medium duty	7 lbs	\$51.50
M-1040	10' X 1.92" OD, .145 wall galv. steel heavy dty	31 lbs	\$57.95
MA-1040	10' X 1.92" OD,.145 wall aluminum	11	\$71.00



YAESU ROTATORS

Model	Windload	Brake Torque	Mast Size	Price
G-450XL	10.6 sq ft		1.5—2.5	\$269.00
G-800	21.5 sq ft	288 ft-lbs	1.5—2.5	\$379.00
G-800SDX	21.5 sq ft	288 ft-lbs	1.5-2.5	\$483.00
G1000SDX	23.5sq ft	433 ft-lbs	1.5-2.5	\$589.00
G2800SDX	32sq ft	1736 ft-lbs	1.9-2.5	\$1329.00
GS-23 RS-232 computer interface for G800-1000-2800SDX				\$345.00
G5400B	11sq ft	145azamith 289elevation	1.2-1.6el	\$609.00

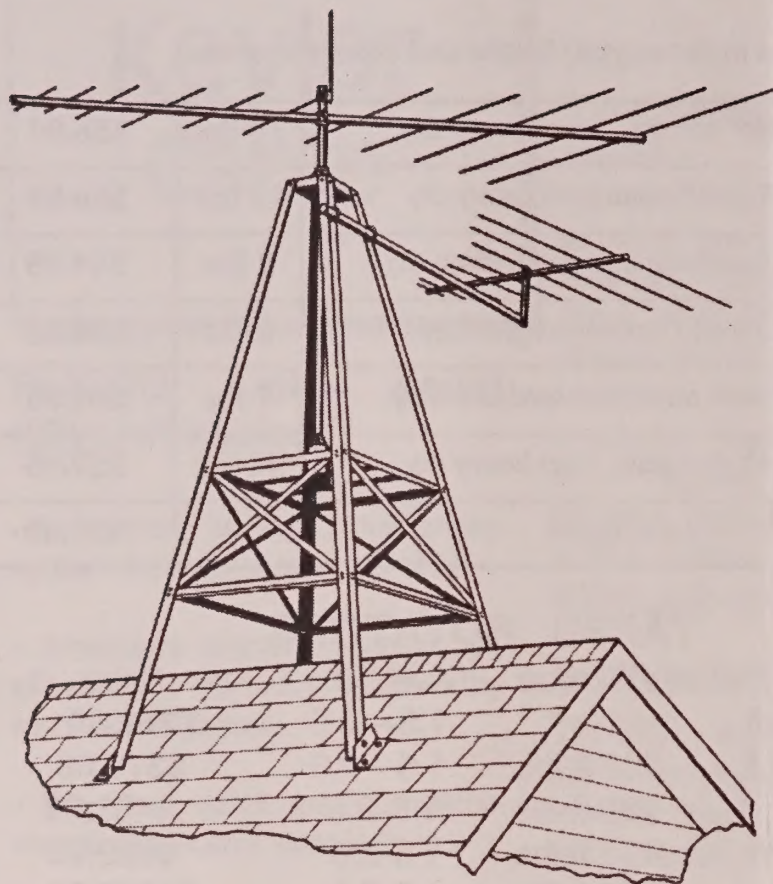
Check with us for our current discount prices.



ORDER INFORMATION

Catalog No.	Capacity Lbs.	Hub Dia. in.	Gear Ratio	Max Mech. Advantage	Drum Cap.	Weight	Price
*B-800	800	1-7/8	4.5:1	30.5	3/16" X 71'	9	\$ 62.00
W-1100	1100	7/8	3.9:1	51	3/16" X 83'	8	\$ 36.00
W-1300	1300	7/8	4.5:1	58	3/16" X 83'	8	\$ 44.00
*B-2000	2000	2-1/2	17:1	114.6	9/32" X 50'	15	\$114.00
W-3500	3500	1-5/16	12:1/6:1	135	3/8" X 37'	25	\$247.00

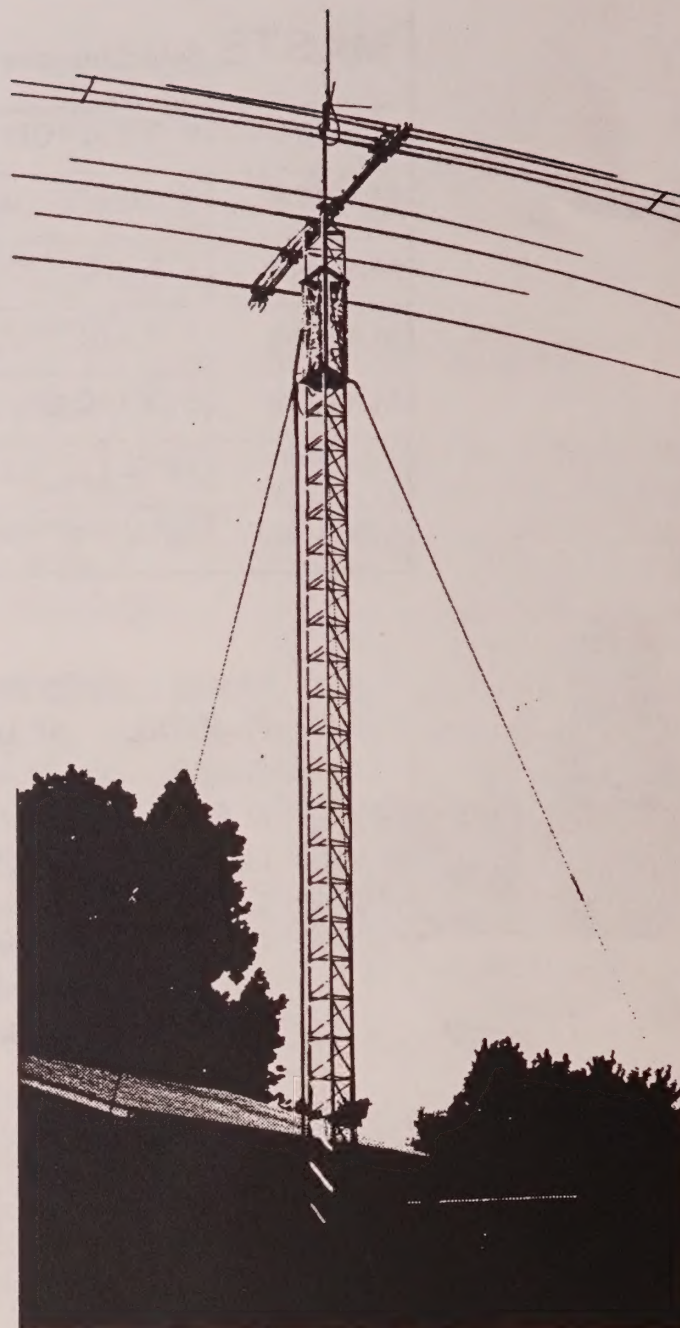
*Brake winches have a friction brake which automatically applies a constant, positive holding action. The load remains exactly in position when the handle is released. Requires a minimum load. W-3500 is a two speed winch.



Call: (816) 882-2734

Fax: 816.882.7200

www.glenmartin.com



Write:

**Glen Martin Engineering
13620 Old Hwy 40
Boonville, MO 65233**

**Let us build a tower especially for
YOU!**